

# Don't NEGLECT



your  
fairways



**T**HIS year, more than ever, golf clubs will be known by *the players they keep!* And the players they keep will be determined by *the fairways they keep.* Next to building a new course the most impressive thing you can do is to build fine turf.

Don't neglect your fairways. Thicken up your turf and produce luxuriant growth by the use of Nitrophoska—the *concentrated, complete, fairway fertilizer.* Nitrophoska is economical—four times as rich in nitrogen, phosphoric acid and potash as the ordinary complete fertilizer. One ton is equal in plant-food to four tons of ordinary fertilizer. Moreover, all of its plant food is soluble and quick-acting. And, because it is granular, it is as easy as wheat to broadcast. Early spring application of 200 pounds per acre produces marvelous results on fairways—gives you *better turf at low cost.* Order now from your supply dealer or direct. Synthetic Nitrogen Products Corp., 285 Madison Ave., New York.

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## Use Urea on Your Greens

*Urea is recommended by the U. S. Golf Association. It contains 46% nitrogen (55.9% ammonia), in the same soluble organic form as nitrogen in liquid manure. It is both quick acting and long-lasting, and does not leave any undesirable residues in the soil. It gives the grass a healthy, dark-green color, and produces unequalled results in spring, summer or fall.*

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# NITROPHOSKA

TRADE MARK REG. U.S. PAT. OFF.

## 15-30-15

Use Nitrophoska — the Fairway Fertilizer

money to establish and maintain, and it is improbable that the greenkeepers can finance the proposition. Furthermore it is not the function of the greenkeeper to finance turf research. Financing turf research is the duty of the golf clubs rather than the greenkeepers.

Some day (and probably not so far off at that) we will all awake to the realization that it is up to the clubs to finance the research while the responsibility for shaping and administering the research policy and program will be shared by the club officials and the greenkeepers, with the latter *in the majority*.

Thinking golf club officials have realized for some time that the greenkeeper has too long been unemployed in the research councils. The educational programs put on at the annual conventions of the Greenkeepers' association opened the eyes of the club officials to the administrative abilities of the greenkeepers. So much so in fact that the Green section gave up the annual winter meeting as unnecessary in view of the greenkeeping convention program and the Green section's summer sessions.

We have seen turf research established at several of the state experiment stations as a result of funds obtained by the efforts of the greenkeepers and we see the greenkeepers cooperating with the research staffs of these experiment stations.

Now we can see that the thinking minds of the Green section personnel are beginning to realize that greenkeepers, representative of the *professional* side of the turf business, as contrasted with the club officials who at best are only amateurs at the business, are capable and worthy of being loaded down with a large slice of the work and responsibility which goes along with the honor of running an organization such as the Green section.

Let the greenkeeper put his shoulder to the wheel, cooperate in every way possible and it won't be long before the club officials will load the whole job of running the research end of the U. S. G. A. onto the broad back of the greenkeeper.

Club officials will gladly unload this job onto the greenkeeper as soon as they are satisfied that the greenkeeper will carry on properly. When this shift in administrative policy occurs you will find that there will be a decided change in the attitude of the turf research worker toward the greenkeeper. The greenkeeper won't have to howl for cooperation from the technical investigator.

## IOWA GREENSMEN ORGANIZE

State Association Formed at Ames Short Course

**S**IXTY-TWO greenkeepers, pro-greenkeepers and chairmen, representing 25 Iowa clubs attended the first greenkeeping short course, held at Iowa State college, Ames, March 7. At this short course the Iowa Greenkeepers' ass'n was organized. Jack Welsh, greenkeeper-pro at Wakonda C. C., Des Moines, was elected president. The new association has a charter membership of 25. Members must have served 3 years as greenkeepers. Mike Shearman, Sioux City C. C. was elected v. p.; Clarence G. Yarn, Woodside, sec., and Ed. White, Woodside, treas. Leo J. Feser, v. p., of the Minnesota Greenkeepers' assn., and Prof. Vernon T. Stoutemyer of Iowa State college were made honorary members.

First meeting of the association will be held at Wakonda C. C., April 11. Monthly meetings will be held at various courses.

The short course was crowded with practical addresses. Prof. B. J. Firkins explained soil testing for acidity and fertility, O. J. Noer discussed fertilizers, Prof. H. D. Hughes dealt with grass seeds and Dr. C. J. Drake talked helpfully on golf course insect pests. Jack Welsh talked on bent grass greens maintenance. Other speakers were L. J. Feser, and Dr. R. H. Porter and Prof. V. T. Stoutemyer of the state college faculty.

### TOUGH TIMES TO QUITTERS BUT CATERPILLAR LADS FATTEN UP

Peoria, Ill.—“Men who would not be beaten by the price-cutters, hot air peddlers and purveyors of equipment ‘sold’ on price” is what the publicity department of the Caterpillar Tractor Co. calls the representatives of the 41 Caterpillar dealer organizations who won honors in the company's 1931 “Dotted Line” contest.

More than 600 Caterpillar dealers' men participated in the contest and by using legs, lips and skulls without reference to clock or calendars usually governing working time, hung up remarkable sales records.

Considering that the Caterpillar fellows' major markets are in fields where things are supposed to be dead, the record they made is inspiring.

# NO QUESTION

## *THIS IS THE*

# FINEST HOSE

# BUILT

**T**HERE may be room for at least a discussion on clubs, course engineering, or even the annual dues. But there is no questioning the quality of this hose:

Goodyear Emerald Cord is the finest hose on the market. It is so designed and built by Goodyear, out of years of hose-manufacturing experience.

It is built of double-double cords, enclosed and meshed in specially compounded Goodyear Rubber. It has an extra strong body to hold the pressures, an extra strong ribbed cover to withstand scuffing, and it lies flat and kinkless.

As for looks—no clubhouse lawn but feels adorned with this bright emerald hose.

Goodyear Emerald Cord Hose is the first choice of many fine clubs the country over. We would be glad to refer you to them, or to give you specifications and other information about Goodyear Hose for Golf Clubs direct on your request to Goodyear, Akron, O., or Los Angeles, Calif.



#### TUNE IN:

Goodyear invites you to hear Arthur Pryor and his Band . . . Revellers Quartet and Goodyear Concert-Dance Orchestra—every Wednesday and Saturday night, over N. B. C. Red Network, WEAf and Associated Stations

# GOODYEAR

THE GREATEST NAME IN RUBBER



Third hole of the Portland course, after clearing through heavy alders and other growth. The green, in the distance, will have guarding traps on either side.

# Careful Planning Brings Fine Public Golf to Portland, Me.

BY WM. J. DOUGHERTY

Secretary-Engineer  
City of Portland (Me.) Park Commission

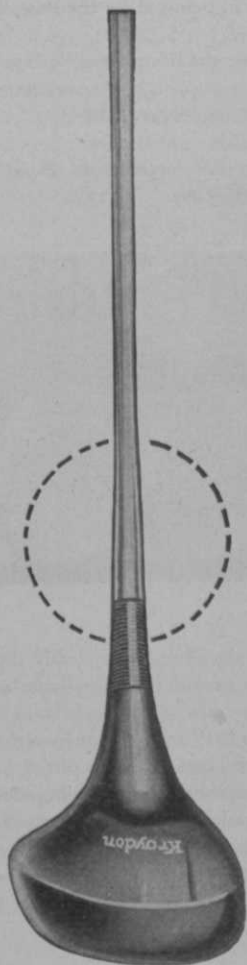
**T**HE CITY of Portland, Maine, during the construction season of 1931 completed 9 holes of an 18-hole layout as the culmination of a long period of discussion of this form of municipal recreation for local use.

In December, 1925, the writer made a general report and recommendation favoring municipal golf for Portland and like the sponsoring of many forward-looking movements the idea was not too well received by our taxpayers. In fact the proposal was treated in some quarters with a reaction bordering on derision of the proponents. After a considerable period of digestion the suggestion of municipal golf was revived in December, 1928, by enthusiastic members of the local Chamber of Commerce. With this background and other local interest that had very slowly accumulated, the city council finally

took action and purchased certain land for the project in late winter of 1931.

It has been a personally happy coincidence that in the main what was suggested in the report of 1925 for land site, capital investment in land, and estimated cost of construction has come remarkably close to these elements of the project of 1930. Especially is this so of land site and cost of the acreage. The land already acquired has an area of 123 acres and has cost the city \$18,359.75 or \$149.26 per acre. The general report of 1925 carried a recommendation for 150 acres of land not to exceed in cost \$150 per acre and an estimated cost of construction for 18-hole layout of \$35,000. The land acquired for the golf course comprises 4 parcels of farm land much of which was considered desirable in 1925 by the writer. It may be advisable to acquire a small amount of

# "HAPPY LANDINGS"



WHEN you hit your ball with a Kroydon Hy-Power Steel Shafted Club, you are sure to make a "happy landing"—a smoother, longer, more accurate shot—yards nearer the cup.

And that's exactly why more and more golfers are turning to Kroydon Clubs fitted with the Kroydon Hy-Power Steel Shaft—the shaft which combines all the best features of the perfect hickory shaft, with the extra advantages of steel construction.

The pro not only finds Kroydon Clubs easy to sell, but makes a full profit on every sale. Kroydon's Policy of Pro-protection prevents price-cutting by anyone, anywhere, at any time.

Push the Kroydon Line at your Club, and watch your sales for 1932 hit a new high.

*For details of the Kroydon Proposition ask your local Kroydon representative to call—or write the Kroydon Company, Maplewood, New Jersey.*

PROFESSIONAL BY

# Kroydon

CLUBS

The circle above illustrates the Reverse Tapering Principle—an exclusive feature with the Kroydon Hy-Power Steel Shaft which puts the whip up nearer the hands, and permits longer, more accurate shots.

# A New Principle POWER

... and Only  
the "Pro" will sell 'em

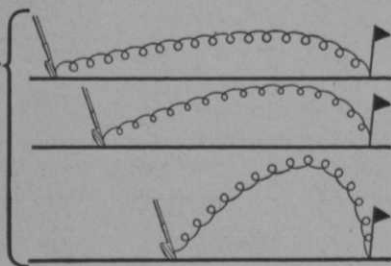
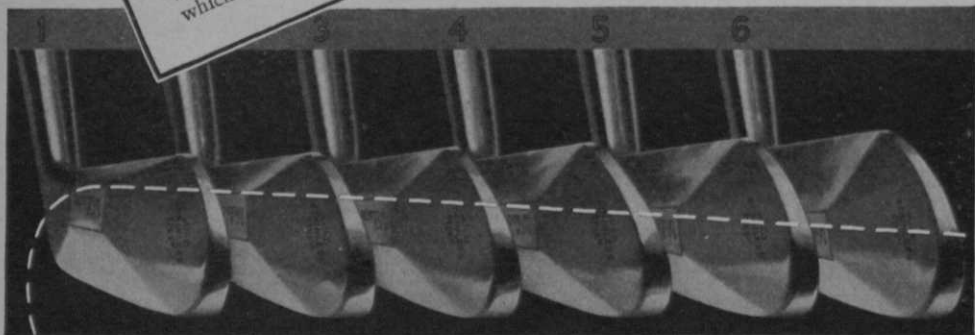
Wilson is running double-pages featuring these fine new clubs . . . in leading golf and national magazines . . . Wilson pays the bill, yet it's your own advertising! . . . Golfers' hands will itch for the championship feel of these new Wilson Power-Gauged clubs—but they can buy them only through you . . . Wilson had the "Pro's" requirements in mind in designing these clubs . . . and has his best interests at heart when it comes to selling them. . . . All of which means a FULL PROFIT FOR YOU.

Something new—yes—but fundamentally sound and based on the principles of golf club construction accepted by the best minds of the game.

The theory is simple, understandable and accepted—namely, that weight in a club head should be varied in placement or adjustment according to the shot that is to be made . . . gauged for the shot, so to speak!

Underspin is just the thing for a "7" or "8" iron shot—but overspin is much more desirable in shots with the longer clubs—"1", "2", "3", etc.).

Hence this new application of an old accepted principle.



In the long irons (1, 2 and 3) high head weight imparts an *overspin*, giving you a long, low "quail shot" that finally rises up, drops, then rolls and rolls. . . . In the niblick and mashie-niblick low head weight means *more underspin* and "dead" stop.

The dotted line in the illustration clearly shows how the weight is gauged individually in each club head.

On the long irons, "1" and "2", the weight at the back of the club is scientifically placed high . . . giving a long, low shot with over-spin and run. In the niblick and mashie-niblick, the head weight is low, forcing the face to cut under and impart real back spin and "bite" to the shot. Throughout the whole range of these irons the same principle

*Buy them from your Professional*



# GAUGED!

of scientifically adjusted back-weight applies.

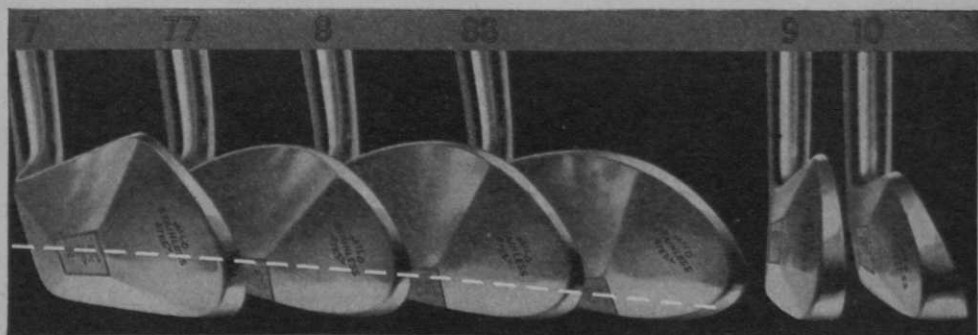
For the first time there are two niblicks . . . the standard "8" for normal shots and the emergency "88", laid way back for the trick, trap shots that you otherwise would get through deliberately regulating the angle of the face. Same with the mashie-niblick . . . a flat-soled "7" for hard fairways and a round-soled "77" for picking them out where the fairways are soggy.

Power-Gauged Irons are made with beautiful stainless steel heads with specially designed punch scored faces fitted to the new ball. No-Shock hosels to eliminate sting and wrist fatigue, seamless steel shafts encased in rich walnut finish protective



## POWER-GAUGED WOODS

Now for the first time—WOODS, matched for actual play, not just for weight, feel, balance or appearance. As the requirement changes from distance in the driver to great accuracy in the brassie and spoon, the head size and face depth decreases. Also new—a "No. 2" spoon with shorter shaft for the player not quite sure of his "2" iron but needing "2" iron accuracy.



sheaths with long black adaptors just above the hosels topped with a ferrule the color of old ivory.

The Reminder Grips of black calfskin with just the right feel fit the hand perfectly. The flat spot on the grip snugles up against the left palm so nicely that it is impossible to grip the club in any other than the correct way.

Any "Pro" who stocks the new Power-Gauged Wilsons, will certainly go places and do things this season.



*Driver*—Large head . . . deep face . . . enough loft to get the ball easily up and away.

*Brassie*—Slightly smaller head . . . more loft . . . less face depth, giving more precision to shots.



*Spoon*—Head still smaller . . . even more loft . . . still more face depth . . . even more accuracy.

*No. 2 Spoon*—Shorter shaft . . . small head . . . minimum face depth . . . "2" iron accuracy . . . based on the principle of a baffie.



by **Wilson**

additional land to accommodate the second 9 if we are to avoid quite severe grading in places and get the most economical and best layout on the remaining acreage.

### Avoided Political Jams

Portland has hundreds of acres of undeveloped suburban land much of which might be adaptable for golf layout and in view of this situation it is surprising that several committees working quite independently on location of a site have been unanimous in selecting the present site. This point is stressed because it is so very popular to have a matter such as this fraught with selfish and many times out and out political motives. Of this latter we were fortunately spared.

Lady Luck has played into our hands in fitting the pattern to the cloth. The land was purchased before expert opinion on golf design was engaged by the city council. In a general way we felt that the pleasant rolling farm land bounded on the easterly side by a suburban highway and on the west by the deep running Presumpscott river and north and south by bordering farms should adapt itself economically to good golf layout. That our hopes were realized is demonstrated in the partly finished product we now have, a well designed 9-hole layout. While we were fortunate, it is not wise generally speaking to purchase land for golf development without first obtaining advisory opinion on fitting golf layout to certain land and having in advance expert knowledge on the factors which influence construction costs and an assurance of soil elements which are so all-important in turf culture.

To those who may not be particularly interested in what Portland, Maine, has done so far in municipal golf this background of our project is merely offered to encourage others whose responsibility it may be to give this form of recreation to its citizens. It may take several years to realize on the undertaking but it will be worthwhile in the end. To obtain municipal funds for golf construction in these critical days of cost of government is no easy task unless the factor of unemployment relief is emphasized. As contrasted to outlay of funds in other forms of recreation however, golf has the saving grace of being able to pay its way in most communities with the health building features added.

This 9-hole project has presented no unusual construction features. There was

no ledge rock encountered and very few stones which could be classed as sizable boulders. We were very careful about general drainage of the land and the main ditch draining the farm land is broad and was excavated to line and grade and sloped at 3 to 1 with a 3 ft. width of trough. Thirteen lateral drains lead into this intercepting ditch and the side drains are of 6, 8 and 10 in. vitrified pipe covered with coarse gravel. The main ditch is 1900 ft. long and 5192 ft. of laterals were constructed. All ditches and drains were excavated mechanically.

In general, preparation of fairways and green sites followed the usual construction practice for this division of the work. The areas were first plowed with a two way No. 20 Oliver plow and following this, a brush breaker harrow, weighted down, was used to break up the soil and this followed by a light farm harrow. Final levelling was accomplished by a "home made" plank drag (12 ft. by 12 ft.) and a very coarse birch (limbs) drag. Under certain soil conditions the Scotch chain harrow was used to advantage to further "mellow" the soil, this being used in most instances behind the lighter harrows. The motive power for working up the soil and for the small amount of brush clearing was a Caterpillar tractor.

### Plan with Soil Analyses

Before commenting on pre-seeding fertilizing it may be interesting to say something of the characteristics of the soil encountered on the project. Tests of soil samples taken to show a typical run of the highland and lowland areas showed analyses as follows: No. 1 fairway soil (lowland) pH 5.8; available phosphoric acid 25 lbs. per acre. No. 3 green site (lowland soil near river) pH 5.4; phosphoric acid 100 lbs. per acre. No. 4 fairway (lowland near river) pH 6.2; phosphoric acid 50 lbs. per acre. No. 8 green site (highland) pH 5.6; phosphoric acid 75 lbs. per acre. Soil in lowland on No. 1 fairway was rather heavy clay and this type of soil was typical of limited low areas on No. 7 and No. 9 fairways. Typical highland soil such as found on No. 8 green site was friable and somewhat on the sandy side. It was necessary to add considerable sand to the lowland clayey soils, the quantity going as high as 40 tons per acre. The sand was well harrowed into the clay sometime after lime had been placed and after tests had shown the





# GIVE THIS LADY A *hearty welcome!*

**D**ON'T neglect her any longer. She's a better, more enthusiastic golfer, and her kind is multiplying like weeds in a berry patch. In 1931 her playing increased 30% to 40% over 1930. She'll keep right on increasing it this year.

Welcome her like a long lost sister. She's fed up with cast-off, made-over golf clubs. She wants clubs that fit her and her style of play. Gladden her heart with Lady Vulcan Woods and Lady Vulcan Irons. They are designed and built exclusively for women---



*Lady Vulcan  
Registered Irons*

four wood models and two lines of irons---in matched and registered sets.



*Lady Vulcan  
Model V-57-L*

She's a smart buyer. She can pick values. Be ready for her with a stock of Lady Vul-

cans. Vulcan Golf Company, 9 Second St., Portsmouth, Ohio.

*Send for your catalog!*

*It illustrates and describes the complete line of Vulcan clubs for men, women and children.*



# VULCAN

CLUBS OF CHARACTER



